THULITE

A set of high-end lenses for APS-C sized 2” sensors and typical machine vision applications
### Key Features:
- 2” (32 mm) max. sensor size
- 3 focal lengths: 35 mm, 50 mm, 75 mm
- Very high resolution down to 2.4µ pixel size
- Initial aperture: F2.8
- M42 and TFL-Mount available
- Covering a wide working distance range

### Typical applications:
- Machine Vision
- AOI (Automated Optical Inspection)
- 3D and 2D measurement
- Robotic Vision
- Surface Inspection

### Suitable Sensors (Selection):
- SONY IMX 342 (Pregius S™ 2nd Gen.)
- On Semi XGS45000
- On Semi Python 25k
- CMOSIS CMV12000
- GPixel GMAX0806
- Line Scan Sensors 8k/3.5µ and 4k/7µ

### Main markets:
- Industry
- Automotive
- Medical
- Traffic
- Security

### Parameter Value

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focal length</td>
<td>35, 50, 75 mm</td>
</tr>
<tr>
<td>f/#</td>
<td>2.8</td>
</tr>
<tr>
<td>Image circle</td>
<td>32 mm</td>
</tr>
<tr>
<td>Sensor size</td>
<td>up to 2”</td>
</tr>
<tr>
<td>Pixel size</td>
<td>down to 2.4 µm</td>
</tr>
<tr>
<td>Chief ray angle (CRA)</td>
<td>&lt; 10°</td>
</tr>
<tr>
<td>Versions available</td>
<td>Long and short distance for 2.8/50 and 2.8/75</td>
</tr>
<tr>
<td>Size (length from mount x diam.)</td>
<td>&lt; 84 mm x 56 mm</td>
</tr>
<tr>
<td>Available Mounts</td>
<td>TFL, M42x0.75, M42x1</td>
</tr>
<tr>
<td>Weight</td>
<td>&lt; 450 g</td>
</tr>
<tr>
<td>Coating</td>
<td>400–1000 nm</td>
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</tbody>
</table>

### Feature Benefit

- Optimized for wide working distance range
  - Usable in wide variety of applications
- High resolution down to pixel size of 2.4 µm
  - Suitable for high resolution sensors
- Low vignetting and high resolution from f/2.8
  - Fully usable at low light
- High transmission from 400 to 1000 nm
  - Suitable for VIS as well as NIR applications
- Optimized for sensors with micro lenses
  - Compatible with Sony Pregius™ 2nd Gen.
- Available with different camera mounts
  - Universal fit to variety of cameras
- Robust mechanical design
  - Stable image position and long-term durability

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**THULITE 2.8/35**  **THULITE 2.8/50**  **THULITE 2.8/75**

**High performance for sensors up to 2”**

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